



SUPPLEMENTAL NOTICE TO PROPOSED RULE FOR RISK MANAGEMENT PLANNING

Clean Air Act section 112(r)

FACTSHEET

The purpose of the requirements of the Clean Air Act (CAA) section 112(r) is to prevent serious chemical accidents that have the potential to affect public health and the environment. Industry has the obligation to prevent accidents, operate safely, and manage hazardous chemicals in a safe and responsible way. The responsibility for prevention, however, is also shared by government, the public, and many other groups that have a stake in chemical safety. The risk management planning rules of the CAA will give facilities a systematic mechanism to identify, assess, and document their chemical hazards. The resulting information, when shared with the public and other stakeholders, will equip citizens to influence industry to reduce risks to their health and the environment.

BACKGROUND

CAA section 112(r) mandates that EPA publish rules and guidance for chemical accident prevention. The rules must include requirements

On October 20, 1993, EPA published a proposed rule for risk management planning under the Clean Air Act (CAA) section 112(r). In response to public comments, EPA has issued a supplemental notice proposing modifications and additions to the original proposed rule. The Agency requested additional comments on several issues including a "tiered" approach that would set different requirements for different facilities; revised hazard assessment requirements, including an alternative worst-case scenario; and state implementation of the rule. The focus of the supplemental notice is to streamline the proposed rule by making the requirements commensurate with the risk posed by facilities and to make implementation and compliance more efficient. The supplemental notice was signed by the EPA Administrator on February 28, 1995.

that facilities develop and implement risk management programs that incorporate three elements: a hazard assessment, a prevention program, and an emergency response program. The programs are to be summarized in plans that must be registered with EPA and submitted to state and local agencies. The plans will also be available to the public. Facilities will be covered by these rules if they have more than a threshold quantity of a listed substance in a process. EPA proposed these risk management planning requirements on October 20, 1993, and promulgated the final list of substances, with thresholds, on January 31, 1994. The list includes 77 acutely toxic substances, 63 flammable gases and liquids, and high explosives as a class.

EPA held four public hearings on the proposed rule and received more than 1,000 comments. In response to concerns raised during this comment



period, EPA identified six issues on which it requested additional comments before preparing a final rule: a tiered approach that would set different requirements for different facilities; revised hazard assessment requirements, including an alternative worst-case scenario; accident information reporting; public participation in the review of the risk management programs and plans; analysis of inherently safer technologies; and state implementation of the rule. A supplemental notice of proposed rulemaking was signed on February 28, 1995, and published in the *Federal Register* on March 13, 1995.

SUPPLEMENTAL NOTICE ISSUES

Tiered Approaches

Under EPA's proposed rule, all affected facilities would be required to complete all elements of the risk management program. These elements include a hazard assessment (offsite consequence analysis and 5-year accident history), an emergency response program, and, for the prevention program, the process safety management (PSM) standard adopted by the Occupational Safety and Health Administration (OSHA) in 1992 (29 CFR 1910.119). Many commenters asked for a modification to this "one size fits all" approach, noting that facilities that pose little or no risk to the public or the environment should not have to implement the technically rigorous requirements for risk management planning.

In response to these comments, EPA has determined that its proposed approach should be modified because facilities affected by the rule pose a wide range of risks. EPA sought comments on a new approach that would establish three "tiers" or levels of requirements to make the degree of detail appropriate for the risks posed:

- ◆ Tier 1 would apply to facilities that have

not had a significant accidental release within the previous five years. This Tier would require only registration and a certification that a facility's worst-case release would not affect human populations or ecosystems.

- ◆ Tier 2 would require facilities to register, conduct an offsite consequence analysis, and document a 5-year accident history. In addition, facilities would have to summarize prevention and emergency response steps being taken to address training, maintenance, monitoring, safety precautions, and procedures for informing the public during an emergency. Facilities would be required to submit the streamlined risk management plan to implementing agencies and make the plan available to the public.

- ◆ Tier 3 would require compliance with the rule as proposed.

EPA also sought comment on two approaches for assigning facilities that cannot meet the Tier 1 requirements to Tier 2 or Tier 3. EPA prefers to limit Tier 3 to facilities with 100 or more full-time employees in the following industry sectors:

- Pulp mills (SIC code 2611)
- Chlor-alkalis (SIC code 2812)
- Industrial inorganics and organics, not elsewhere classified (SIC codes 2819, 2869)
- Plastics and resins (SIC code 2821)
- Nitrogen fertilizers (SIC code 2873)
- Agricultural chemicals, not elsewhere classified (SIC code 2879)
- Petroleum refineries (SIC code 2911)

After eight years, facilities with 20 to 99 employees would be required to comply with Tier 3 if they are in the following industry sectors: chlor-alkali (2812), industrial inorganics and organics, not elsewhere classified (2819, 2869), nitrogen fertilizer (2873), and petroleum refinery (2911).

EPA selected these sectors based on their accident histories but sought comment on whether other sectors should be included. An alternative approach would be to extend Tier 3 requirements to all facilities with 100 or more full-time employees; these facilities are likely to have larger quantities of regulated substances on site and to have the resources to implement the rule.

Hazard Assessment

The CAA mandates that facilities conduct a hazard assessment that analyzes the offsite consequences of a range of releases including worst case. Commenters recommended that EPA revise the proposed definition of worst case as an instantaneous release of the entire contents of the process and sought other changes to requirements related to the hazard assessment.

EPA proposed to change the definition of worst-case release to the release of the largest quantity from a vessel or piping failure in a 10-minute period. The offsite consequences of such an event would be analyzed under worst-case meteorological conditions and would consider passive mitigation systems (e.g., diked areas), provided they could withstand the impact of major natural hazards such as floods, earthquakes, or hurricanes. Active mitigation systems might be considered in the analysis of other more likely release scenarios, but not for worst case.

In response to comments, EPA also proposed to allow facilities to analyze a single flammable and a single explosive to represent all affected flammables and explosives on site for the worst case and other more likely scenarios. For each toxic substance, whether it is used in one process or multiple processes, only one worst-case event would have to be analyzed. However, each toxic substance would require at least one other more likely release scenario. These changes would limit the number of analyses facilities would need to conduct.

To reduce the cost burden on facilities and to allow consistent and streamlined assessments, EPA plans to prepare quick reference tables for all listed substances. These tables will enable owners and oper-

ators of facilities to determine impact distances from their release scenarios without air dispersion modeling. EPA will make the tables available for public review and comment before the rule is final.

Also in response to comments, EPA proposed to clarify the detail needed for facilities to define potentially affected populations and environments. For populations, facilities would be able to limit the task to providing information readily available from the U. S. Census. For environments, facilities would be required only to identify whether any sensitive environments were within the impact distances of an accidental release; they would not have to assess potential damage. EPA is seeking comment on a list of sensitive environments.

Accident Information Reporting

The proposed rule required facilities to submit a 5-year accident history as part of the risk management program. EPA sought comment on whether and how it could obtain additional information on significant accidents. One approach would be to require facilities to submit accident investigation reports developed under this rule and other rules, such as OSHA PSM. An alternative would be to limit submissions to these reports but require that reports be submitted only when EPA requests them.

Public Participation

Public interest group commenters asked EPA to mandate public participation in the development or review of the risk management programs and plans. Under the Emergency Planning and Community Right-to-Know Act, facilities are obligated to work closely with their Local Emergency Planning Committees (LEPCs) and to use these entities as a means of informing the public about their operations. EPA did not propose specific requirements but requested comments on steps facilities could take to involve the public in discussions of the content of the risk management programs and plans.

Inherently Safer Technologies and Approaches

Several commenters recommended that EPA require facilities to eliminate, rather than control, hazards. They suggested that facilities be required to analyze alternative approaches to the use of certain substances and processes. EPA believes that process safety management, exercised over time, will lead to measurable improvements in safety. Many facilities already perform analyses of inherently safer approaches when designing new processes or as part of process hazard analyses. EPA encourages facilities to include discussion in the risk management plan of any steps they take to implement inherently safer approaches. The Agency did not propose additional requirements but considered further study of this issue.

Implementation and Integration with State Programs

Commenters asked EPA to explain the relationship of the CAA section 112(r) requirements to the CAA Title V operating permit requirements. About 10 to 15 percent of the facilities subject to the 112(r) requirements must also obtain operating permits under CAA Title V. The CAA section 112(r) rules are applicable requirements for facilities subject to Title V requirements. EPA believes, however, that the risk management planning requirements should not be in the permit and proposed a standard set of Title V permit conditions to meet the 112(r) requirements. The state or local air permitting agency would be required to determine whether the permit conditions have been met and the risk management plan was com-

plete. The decision about whether the plan is complete could, however, be made by the 112(r) implementing agency under a co-operative agreement with the Title V permitting agency.

EPA believes that the risk management planning requirements should be implemented and enforced at the state or local level. EPA encourages states to seek delegation of the program under CAA section 112(l) rules. If a state chooses not to implement the CAA section 112(r) program, EPA, by default, will serve as the implementing agency.

CONCLUSION

EPA encouraged interested parties to submit comments on these issues. The Agency held a public hearing at EPA headquarters on March 31, 1995. Comments have been submitted to the EPA Docket, which are being considered as the Agency prepares the final risk management planning rule.

FOR MORE INFORMATION...

CONTACT THE EMERGENCY PLANNING AND
COMMUNITY RIGHT-TO-KNOW HOTLINE

(800) 424-9346 OR (703) 412-9810

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MONDAY-FRIDAY, 9 AM TO 6 PM, EASTERN TIME